

Remarks/Arguments:

Claims 1-9, 12, 16-20, 22-27, 30, 35, 37, 38, 40, and 47-50 are currently pending. Claims 1-9, 12, 16-20, 22-27, 30, 35, 37, 38, 40, 47, 48, and 50 have been amended for clarification and are supported by the original claims. It is respectfully submitted that no new matter has been added.

The Patent Office rejected claims 1-9, 12, 16-20, 22-27, 30, 37, 38, 40, and 47-50 under 35 U.S.C. 103(a) as being unpatentable over Wang, U.S. Patent No. 6,990,453, in view of Barton, U.S. Published Patent Application No. 2002/0072982, and Vetro, U.S. Patent No. 6,490,320.

In Applicant's claimed invention, a first set of features is extracted, a request for at least one additional feature is received, and a second set of features responsive to the request is extracted where a request message that requests at least one additional feature that is a higher order extraction not directly extracted from the media sample itself.

In Wang, landmarks and fingerprints are used to build a database 18. A media sample is captured 12 (Figure 1). Landmarks and fingerprints from the exogenous media sample are computed 14 and matched 16 through use of the database 18. Correspondences are generated 20 and a winning media sample file is located 22.

Wang discloses a sound source continually sampled into a buffer (column 21, lines 64-67). Sound parameters may be extracted from a sound buffer into fingerprints or other intermediate feature-extracted forms and stored in a second buffer (column 22, lines 19-21). New fingerprints may be added to the front of the second buffer while old fingerprints are discarded from the end of the buffer to form a rolling buffer (column 22, lines 22-24).

The method of Wang involves a search first performed on a first subset of sound files and only if the first search fails, then a search of second subset of sound files is performed (column 19, lines 23-34). Wang's method does not involve requesting the mobile station to provide a second set of features and does not appear amenable to modification to request a second set of features from the mobile station since the method of Wang involves a first search of highly used sound files only to be followed by a second search of less highly used sound files. Wang does not contemplate a request for a second set of features, as evidenced by Figure 1, in which Wang finds matching fingerprints 16 and then generates correspondences 20 with sample landmarks to find a winning sound file 22.

The Patent Office from page 3, line 14, through page 4, line 4, of the Office Action dated January 08, 2008, as follows:

In an analogous art, Barton teaches a system for identifying audio samples that includes a recursive feature for automatically requesting more information in order to narrow the search results to find the corresponding file. (Page 5 [0048 and 0049] the “resolution of the derivation is coupled, in large measure, to the level of discrimination required in selecting, an event to be triggered. As the number of potentially triggered events increases, the necessity to resolve ambiguity in the sample also increases,” Page 6 [0059] “the song excerpt may be increased in length, or a different excerpt may be furnished, in an iterative manner” until a song is identified and Page 7 [0067-0068]) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement resolution to resolve ambiguity of Barton. One of ordinary skill in the art would have been motivated to do this since it enables back and forth communication to resolve ambiguity. (Page 5 [0048-0049], Page 6 [0059] and Page 7 [0067-0068])

The Patent Office has made an assertion that Barton teaches “over the wireless communication link a request message that requests at least one additional feature that is a higher order extraction not directly extracted from the media sample itself” and that the teaching for this is found in paragraphs 0048, 0049, 0059, 0067, and 0068 of Barton. These five paragraphs are reproduced below:

[0048] Referring again to FIG. 1, the experiential environment sample is received by recognition engine 110 on line 117. Recognition engine 110 derives characteristics of the received sample by using data stored in database 115. Recognition 110 and database 115 are operationally coupled via line 119, as shown in FIG. 1. A variety of derivation methods may be used. In the case of audio samples, the techniques described in Appendix may be used. However, it is noted that the derivation methods that may be used in this invention are not limited to such techniques. The particular derivation method chosen is only required to be able to derive sufficient characteristics from the experiential environment sample to enable a predetermined event to be triggered. Thus, the strength or resolution of the derivation is coupled, in large measure, to the level of discrimination required in selecting an event to be triggered. As the number of potentially triggered events increases, the necessity to resolve ambiguity in the sample also increases.

[0049] For example, in the case of the exemplary embodiment where song lyrics corresponding to a broadcast song are sought by a user, a relatively large number of characteristics about the sample may be derived and compared against stored data to be able to

identify the particular song from the many such songs that may be stored. That is, as more songs are potentially identified, more lyric delivery events are potentially triggered. By comparison, in service offerings where there are relatively small number of events are potentially triggered, fewer sample characteristics need typically be derived in order to resolve ambiguity as to which event to trigger. Such service offering may include those where a binary "Yes" or "No" event may be triggered as may be the case for customer surveys and voting/polling type services.

[0059] The friends are prompted in the message or call to try to "Name that Tune" by identifying the song's title or artist from the small excerpt. The friend's guesses may be collected by the service provider using a variety of methods, including for example, an interactive web-site, telephone call center, email, or conventional mail. If no one correctly identifies the song, the song excerpt may be increased in length, or a different excerpt may be furnished, in an iterative manner, until a "winner" is determined.

[0067] Block 174 in FIG. 1 shows that control events may also be triggered in response to a sampled experiential environment in accordance with the invention. Control events are those that provide the user with an ability to control or otherwise manipulate information and data, services, or other events in a predetermined manner according to the captured sample received by a service provider. For example, a human resources recruiter may organize a data archive of job candidates and associated demographic data by engaging a service provider that automatically manipulates the data according to web-site images of potential hiring companies that are captured in a frame grabber running on the user's computer and uploaded to the service provider. In such cases, the candidate database can be sorted according to the captured web-document and derived by deriving preselected characteristics such as industry type, key-words in the text elements of the page, and other characteristics.

[0068] Communication events may be triggered in accordance with the invention as depicted by block 175 in FIG. 1. Communication events include, for example, communicative interactions among users, between users and the service provider, or such interactions between users, the service provider, and third parties.

Where in these passages from Barton is there a teaching or suggestion of a request message sent to an apparatus for a second feature that is a higher order extraction after the apparatus transmits a first set of features? Although Wang, in column 8, lines 13-21, discloses the "client end sends a feature-extracted summary of the captured signal sample containing landmark and fingerprint pairs to the server end, which

performs the recognition.” Wang does not disclose that the server sends a request message to the client end to request an additional feature representing a higher order extraction. Paragraph 0048 of Barton discloses that a derivation method is “required to be able to derive sufficient characteristics from the experiential environment sample.” Paragraph 0049 of Barton discloses that “a relatively large number of characteristics about the sample may be derived and compared against stored data.” Paragraph 0059 of Barton discloses a “Name that Tune” game may be played with friends whose guesses may be collected by a service provider. Paragraph 0067 of Barton discloses “control events may also be triggered in response to a sampled experiential environment.” Paragraph 0068 discloses “communication events may be triggered” where “communication events include, for example, communicative interactions among users, between users and the service provider, or such interactions between users, the service provider, and third parties. However, Barton does not disclose a request message in which an apparatus that sent a first set of features sends an additional feature that is a higher order extraction in response to the received request message. **Not only does Barton not disclose this subject matter that has been claimed, but Barton wouldn’t request extracted features from an external apparatus because Barton’s disclosure is of a system that already has the sample itself (see Figure 1 of Barton, where the capture device 102 that captures a sample of experiential environment provides the sample in a suitable format for processing by the recognition engine 110, disclosed in paragraph 0027) and so would not need to have extractions from the sample sent to it as it could perform the extractions itself.**

Where does the base reference, Wang, teach that the server end that performs recognition ever requests information from the client end (see column 8, lines 13-19)? Barton, a secondary reference, teaches that the sample itself, not information about the sample, is captured and provided to a recognition engine.

Accordingly, Wang and Barton, in combination or alone, contrary to the assertions of the Patent Office, fail to disclose or suggest “a request message that requests at least one additional feature that is a higher order extraction not directly extracted from the media sample itself” and responsive to the request message, “a second set of features from the digital version of the media sample” is extracted and transmitted.

Vetro is apparently cited by the Patent Office for a teaching of high-level description schemes (col. 4, lines 44-46) in addition to a low-level representation (col. 4, lines 34-38) and SummaryDS (col. 22, lines 30-33). Vetro relates to “delivery systems

that adapt information to available bit rates of a network” (col. 1, lines 15-17). Vetro does not appear to disclose or suggest “a request message that requests at least one additional feature that is a higher order extraction not directly extracted from the media sample itself” and responsive to the request message, “a second set of features from the digital version of the media sample” is extracted and transmitted.

Since Wang, Barton, and Vetro, in combination or alone, fail to disclose or suggest “a request message that requests at least one additional feature that is a higher order extraction not directly extracted from the media sample itself” and responsive to the request message, “a second set of features from the digital version of the media sample” is extracted and transmitted, claims 1-9, 12, 16-20, 22-27, 30, 35, 37, 38, 40, and 47-50 are allowable over these references.

The Patent Office is respectfully requested to reconsider and remove the rejections of the claims under 35 U.S.C. 103(a) based on Wang, Barton, and Vetro, alone or in combination, and to allow all of the pending claims 1-9, 12, 16-20, 22-27, 30, 35, 37, 38, 40, and 47-50 as now presented for examination. An early notification of the allowability of claims 1-9, 12, 16-20, 22-27, 30, 35, 37, 38, 40, and 47-50 is earnestly solicited.

Appl. No. 10/810,924
GAU: 2617

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May 8, 2008
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